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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,058	02/11/2002	Simon Turner	010108	7484
23696 7590 08/15/2007 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121			EXAMINER NGUYEN, HANH N	
			ART UNIT 2616	PAPER NUMBER
			NOTIFICATION DATE 08/15/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/075,058

Applicant(s)

TURNER, SIMON

Examiner

Hanh Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Response filed on 6/6/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Regarding claim 31, the word "means" is preceded by the word(s) "receiving a packet data transmission; transmitting a pause command; reconfiguring a receiver; monitoring a paging channel; reconfiguring the receiver; and transmitting a resume command" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function.

However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

In claim 31, it is not clear to what element the "means" are described ?

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5, 6, 8-17, 18, 19-23, 24, 26, 27-29, 30 and 31 are rejected under 35 USC 103(a) as being unpatentable over Vanghi (US Pat. 6,937,861 B2).

In claims 1, 10, 16 and 31, Vanghi discloses a method of conducting wireless data

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communications (see fig.4) comprising receiving a packet data transmission from a first wireless network (access terminal 14 receives ACK message comprising traffic channel assignment from radio network 22; see col.8, lines 8-15); **momentarily suspending communication to the first wireless network (access terminal 14 suspends its reverse connection with the radio network 22 to switch connection IS2000 radio network 28, see col.8, lines 20-25)**; reconfiguring a receiver from a mode corresponding to communication with the first wireless network to a mode corresponding to communication with a second wireless network (suspends its connection with the radio network 22 to perform idle state processing with radio network 28, see col.8, lines 20-40); monitoring a paging channel of the second wireless network (col.5, lines 30-40; access terminal 14 periodically monitors paging channels transmitted from radio network 28 for incoming call, incoming pages); reconfiguring the receiver from the mode corresponding to communication with the second wireless network to the mode corresponding to communication with the first wireless network (once completing the idle state processing with the radio network 28, access terminal 14 returns to its previous connection to radio network 22, col.8, lines 40-47); and transmitting a resume command to the first wireless network (access terminal 14 resumes communication with access network 12 using previously assigned resource; see col.8, lines 40-47 & col.9, lines 50-55). However, it is not clear whether the suspend communication made by Vanghi to the first radio wireless network 22 is transmitted or not.

Vanghi discloses, in col.5, lines 22-30, that when an access terminal 14 has an open connection with radio network 22 (first wireless network), it is expected to continuously transmit to the radio network 22 data traffic and control information. Thus, the radio network 22

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continuously receives information from the access terminal 14 during an open packet data connection. As addressed by Vanghi above in col.8, lines 8-15, it would have been obvious that as the access terminal 14 suspends its reverse connection with the radio network 22, control information such as pause command should be transmitted from access terminal 14 to the radio network 22 notifying the radio network 22 that the access terminal 14 is going to communicate with IS2000 radio network 28 (second wireless network).

In claims 17, 19 and 27, Vanghi substantially discloses most of limitations as disclosed in the rejection of claim 1 above, In addition, Vanghi discloses the access terminal 14 is configured with a suspension timer such that the access terminal 14 can keeps track of how long its connection with radio network 22 was suspended (a timer configured to send an indication at a time near a start of a paging slot; see col.7, lines 40-50).

In claims 2, 3, 22 and 23, Vanghi discloses, in fig.1, transmitting a pause command to the first wireless network includes transmitting a pause command to a packet data serving node (PDSN 24) via the first wireless network (radio network 22), and wherein transmitting a resume command to the first wireless network (radio network 22) includes transmitting a resume command to the packet data serving node (PDSN 24) via the first wireless network; and receiving packet data transmission from packet data serving node (PDSN 24) via the first network (radio network 22).

In claim 11, Vanghi discloses the steps of transmitting a resume command to the first wireless network, wherein said monitoring occurs between said transmitting a pause command and said transmtting a resume command in claim 1 above.

In claim 6, 8, 9, 12, 13, 14, 15, 20, 21, 28 and 29, Vanghi discloses the pause command including null data rate as well as the resume comand includes non-null data rate as indicated in claim 1.

In claims 5, Vanghi does not disclose the pause command includes a command to reduce a data rate. Huang et al. discloses that placing the call on hold can significantly reduce the network bandwidth (see col.2, lines 1-5; pause command reduce data rate). Therefore, it would have been obvious to one skilled in the art that the request to stop transmitting IP packets if applied in Vanghi would reduce data rate in the network. The motivation is to save bandwidth and control congestion in the network.

In claim 24, Vanghi discloses the access terminal is further configured and arranged to receive the packet data transmissions (receiving traffic channel assignment; fig.4, col.8, lines 10-15) from the first wireless network over a traffic channel; and wherein, near a start of the paging slot (at some later point in time), a mode of the access terminal is changed from a mode corresponding to the traffic channel (suspending traffic channel) to a mode corresponding to the paging channel (to monitor for incoming pages). See col.8, lines 20-27 and col.5, lines 35-42. unit is changed from a mode corresponding to the traffic channel to a mode corresponding to the paging channel. Vanghi does not disclose the access terminal comprising a physical layer control unit configured to receive packet and change from traffic channel to paging channel. An office notice is taken that having a control unit in an access terminal is well-known in the art to control operation of access unit. Therefore, it would have been obvious to comprise a physical layer control unit in an access terminal of Vanghi to receive packet transmission and change from traffic channel to paging channel. The motivation is to provide access terminal capability of

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receiving incoming communications from one wireless network even while it is active on another wireless network.

In claim 26, as disclosed by Vanghi in claim 24 above, when when the access terminal 14 completes its connection with radio network 28 (paging channnnel), it resumes communications with radio network 22 (traffic channel) by transmitting on reverse link channel (changing from paging channel to traffic channel). See col.5, lines 52-55.

In claims 18 and 30, with the discussion of the parent claims, interrupt request signal has been disclosed in claims 1, 10, 16 and 31.

Claim 4, 7 and 25 are rejected under 35 USC 103(a) as being unpatentable over Vanghi (Pat. 6,937,861 B2) in view of Rajaniemi et al. (US Pat. 6,487,399 B1).

In claims 4, 7 and 25, Vanghi does not disclose reconfiguring the receiver including changing a frequency of a RF stage. Rajaniemi et al. discloses a multi-mode, dual band mobile terminal 10 (fig.2) communicating with a network 32 (first wireless network) at a GSM1900 carrier (a first mode) at 200KHz (a first frequency) and another network 32' (a second network) at TDMA1900 carrier (a second mode) at 30 KHz (a second frequency). The mobile station 10 tunes its receiver 16 (fig.1) at 200 KHz, and then converts the frequency to 30 KHZ. See Abstract. Therefore, it would have been obvious to one ordinary skilled in the art to use the tuning frequency of Rajaniemi et al. into Vanghi to change the frequency of the access terminal corresponding from a frequency corresponding to IS-856 mode to a frequency corresponding to IS 2000 mode. The motivation is to reduce interference between dual networks.

Response to Arguments

Applicant's arguments with respect to claims 1-31 have been considered but are moot in view of the new ground(s) of rejection.

With respect to claims 1, 10, 16, 17, 27 and 31 above, Applicants argues that Vanghi does not disclose transmitting a pause command to the first wireless network and transmitting a resume comand to the first wireless network.

Examiner believes that Vanghi discloses, in col.5, lines 22-30, that when an access terminal 14 has an open connection with radio network 22 (first wireless network), the access terminal 14 continuously transmits to the radio network 22 data traffic and control information. Thus, the radio network 22 continously receives information from the access terminal 14 during an open packet data connection. At some point during the connection with radio network 22, the access terminal 14 momentarily suspends its communication to the wireless network 22. Eventhough suspending from the radio network 22, the access terminal 14 still monitors its time of suspension (see col.8, lines 20-25). Since control information is continuously transmitted to the radio network 22 as the access terminal 14 starts to suspend its communication with the radio network 22, therefore, it would have been obvious that as the access terminal 14 transmits in the control information pause command before it suspends communication with the radio network 22. As the access terminal 14 returns its communication with radio network 22, with the similar discussion of using control information above, the access terminal 14 resumes its communication with the radio network 22 using its oreviously assigned resource. Therefore, transmitting a resume command to the radio network 22 is inherent "a control information" indicating the radio network 22 that access terminal 14 returns. (see col.8, lines 44-48; access terminal 14 resumes communication with access network 12 which includes radio network 22 using previously

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assigned resource by radio network 22; and further in col.9, lines 1-5,.It is noted that the claim does not required whether that a timer is applied to transmit a resume command.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Katseff et al. (Us pat. 6,768,722 B1) ;

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-Friday from 8:30 to 4:30. The examiner can also be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild, can be reached on 571 272 2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen



**HANH NGUYEN
PRIMARY EXAMINER**